

**IN THE UNITED STATES  
PATENT AND TRADEMARK OFFICE**

Appl. No. : 10/805,748  
Applicants : Nasreen CHOPRA et al.  
Filed : 22 March 2004  
TC/A.U. : 2624  
Confirmation : 9580  
Examiner : Perungavaoor, Sathyanaraya V.  
Atty. Docket : 10030543-01

Title: INSPECTION SYSTEM AND METHOD FOR PROVIDING  
FEEDBACK

**APPEAL BRIEF**

U.S. Patent and Trademark Office  
Customer Window, Mail Stop **Appeal Brief - Patents**  
Randolph Building  
401 Dulany Street  
Alexandria, VA 22314

Sir:

In response to the FINAL Office Action dated 10 November 2008, finally rejecting pending claims 1-20, and in support of the Notice of Appeal filed on 10 February 2009, Applicants hereby respectfully submit this Appeal Brief.

**REAL PARTY IN INTEREST**

According to an assignment recorded at Reel 014769, Frame 0371, Agilent Technologies owns all of the rights in the above-identified U.S. patent application.

**RELATED APPEALS AND INTERFERENCES**

There are no other appeals or interferences related to this application or to any related application, nor will the disposition of this case affect, or be affected by, any other application directly or indirectly.

### **STATUS OF CLAIMS**

Claims 2, 4-8, 10-11, 13, 15-16, 19 and 21-38 are pending and all stand rejected.

Accordingly, the claims on Appeal are claims 2, 4-8, 10-11, 13, 15-16, 19 and 21-38.

### **STATUS OF AMENDMENTS**

There are no pending amendments with respect to this application.

### **SUMMARY OF CLAIMED SUBJECT MATTER**

The present invention is directed to an inspection system and a method for providing feedback during inspection of an object.<sup>1</sup>

Accordingly, as broadly recited in claim 5, a method (FIGs. 3, 5, 7, 8 & 9) provides feedback during an inspection of an object. The method comprises: receiving first image data representing the object, the first image data being produced using an image parameter (FIG. 3 – step 320, page 9, line 22 – page 10, line 1; FIG. 5 – step 520, page 13, lines 5-6; FIG. 7 – step 740, page 14, lines 14-17; FIG. 8 – step 840, page 15, lines 8-10; FIG. 9 – step 925, page 16, lines 4-8); determining an incorrect classification of at least one feature of the object based on the first image data produced as a result of an original setting of the image parameter (page 10, line 17 – page 11, line 5; FIG. 7 – steps 750 & 760, page 14, lines 16-20; FIG. 8 – steps 850 & 860, page 15, lines 12-15; FIG. 9 – steps 930, 945 & 950; page 16, lines 8-10, 15-17 & page 16, line 21 – page 17, line 1); calculating image parameter modification information to correct the incorrect classification (FIG. 3 – step 330, page 10, lines 5-6; FIG. 5 – step 530, page 13, lines 6-7; FIG. 7 – step 770, page 14, lines 21-22; FIG. 8 – step 870, page 15, lines 16-17 FIG. 9 – steps 935 &

---

<sup>1</sup> In the description to follow, citations to various reference numerals, figures, and corresponding text in the specification are provided solely to comply with Patent Office rules. It should be understood that these reference numerals, figures, and text are exemplary in nature, and not in any way limiting of the true scope of the claims. It would therefore be improper to import anything into any of the claims simply on the basis of **exemplary** language that is provided here only under the obligation to satisfy Patent Office rules for maintaining an Appeal.

955, page 16, lines 10-12 & page 17, lines 2-4); modifying the original setting of the image parameter to a modified setting based on the image parameter modification information (FIG. 3 – step 340, page 10, lines 6-8; FIG. 5 – step 540, page 13, lines 7-9; FIG. 7 – step 780, page 14, line 22 – page 15, line 1; FIG. 8 – step 880, page 15, lines 17-18; FIG. 9 – steps 935 & 955, page 16, lines 10-12 & page 17, lines 2-4); and receiving second image data representing the object, the second image data being produced using the modified image parameter (FIG. 3 – step 350, page 11, lines 6-7; FIG. 5 – step 540, page 13, lines 7-9; FIG. 7 – step 730, page 15, lines 1-2; FIG. 8 – step 840, page 15, lines 18-20; FIG. 9 – step 925, page 16, lines 10-12 & page 17, lines 2-4).

As further featured in claim 4, producing the first image data includes capturing a first image of the object (FIG. 5 – step 520, page 13, lines 5-6; FIG. 9, element 915, page 16, line 6; page 14, line 15; page 15, line 10), and wherein producing the second image data includes capturing a second image of the object (FIG. 5 – step 540, page 13, lines 7-9 FIG. 9, element 915, page 15, line 2; page 16, lines 19-20; page 15, lines 18-20).

As further featured in claim 8, the image parameter is an image processing parameter (page 10, line 21 – page 11, line 2; FIG. 8 – steps 820 & 880; page 15, lines 9-10; FIG. 9 – steps 950 & 955, page 16, line 21 – page 17, line 7).

As further featured in claim 10, producing the first image data includes processing raw image data representing an image of the at least one feature of the object using the original setting of the image processing parameter to produce the first image data (FIG. 7 – step 740, page 14, lines 14-17; FIG. 8 – step 840, page 15, lines 10-11; FIG. 9 – step 920, page 16, lines 6-8); and wherein the producing the second image data includes processing the raw image data using the modified setting of the image processing parameter to produce the second image data (FIG. 7 – steps 780 & 740; page 14, line 22 – page 15, line 2; FIG. 8 – steps 880 & 840, page 15, lines 17-20; FIG. 9 – steps 995/935 & 925, page 16, lines 17-20; page 17, lines 2-6).

As further featured in claim 11, the image processing parameter is at least one of a processing type parameter or a processing complexity parameter (page 3, lines

17-20; page 9, lines 4-7).

As broadly recited in claim 15, a method provides feedback during an inspection of an object. The method comprises: setting at least one image acquisition parameter to capture a first image of the object (FIG. 5 – step 520; FIG. 7 – step 720; fig. 8 – step 820; FIG. 9 – step 910); determining an incorrect classification of at least one feature of the object based on first image data representing the first image captured using the setting (page 10, line 17 – page 11, line 5; FIG. 7 – steps 750 & 760, page 14, lines 16-20; FIG. 8 – steps 850 & 860, page 15, lines 12-15; FIG. 9 – steps 930, 945 & 950; page 16, lines 8-10, 15-17 & page 16, line 21 – page 17, line 1); determining image acquisition parameter modification information to correct the incorrect classification and produce an adequate classification (FIG. 3 – step 330, page 10, lines 5-6; FIG. 5 – step 530, page 13, lines 6-7; FIG. 7 – step 770, page 14, lines 21-22; FIG. 8 – step 870, page 15, lines 16-17 FIG. 9 – steps 935 & 955, page 16, lines 10-12 & page 17, lines 2-4); and modifying the image acquisition parameter based on the image acquisition parameter modification information (FIG. 3 – step 340, page 10, lines 6-8; FIG. 5 – step 540, page 13, lines 7-9; FIG. 7 – step 780, page 14, line 22 – page 15, line 1; FIG. 8 – step 880, page 15, lines 17-18; FIG. 9 – steps 935 & 955, page 16, lines 10-12 & page 17, lines 2-4) to capture a second image of the object (FIG. 3 – step 350, page 11, lines 6-7; FIG. 5 – step 540, page 13, lines 7-9; FIG. 7 – step 730, page 15, lines 1-2; FIG. 8 – step 840, page 15, lines 18-20; FIG. 9 – step 925, page 16, lines 10-12 & page 17, lines 2-4).

As broadly recited in claim 21, an inspection system (FIGs. 1, 2, 4, 6 & 10; page 5, line 18, page 11, line 11, page 13, line 12, page 17, line 10) for providing feedback during an inspection of an object comprises: a processor (FIG. 1 – element 150, page 6, lines 11-12; FIG. 10 – element 1040, page 17, lines 17-18) connected to receive first image data representing the object, the first image data being produced using an image parameter (page 14, lines 14-17; page 15, lines 10-11; page 16, lines 6-8), wherein the processor includes a classification processor (FIGs. 1, 2 and 6 – element 170, page 7, line 12 – page 8, line 2) to receive the first image data, to determine an incorrect classification of at least one feature of the object based on the

first image data as a result of an original setting of the image parameter (page 10, line 17 – page 11, line 5; page 14, lines 16-20; page 15, lines 12-15; page 16, lines 8-10, 15-17 & page 16, line 21 – page 17, line 1), to calculate image parameter modification information to correct the incorrect classification (page 10, lines 5-6; page 13, lines 6-7; page 14, lines 21-22; page 15, lines 16-17; page 16, lines 10-12 & page 17, lines 2-4), and to modify the original setting of the image parameter to a modified setting based on the image parameter modification information for use in producing second image data representing the object (page 10, lines 6-8; page 13, lines 7-9; page 14, line 22 – page 15, line 1; page 15, lines 17-18; page 16, lines 10-12 & page 17, lines 2-4).

As further featured in claim 28, the system further comprises an illumination source (Fig. 1 – element 110, page 6, line 1) disposed in relation to the object to illuminate the object, the image parameter being an illumination parameter controlling the illumination source (page 9, lines 3-4).

As further featured in claim 29, the illumination source illuminates the object with a beam of X-rays (page 6, lines 3-5).

As further featured in claims 31, 34 & 38, the image acquisition parameter is an illumination parameter, and wherein the illumination parameter is an intensity of an illumination source employed for illuminating the object (page 9, lines 13-19, page 10, lines 13-16; page 12, lines 9-12).

As further featured in claim 32 & 35, the image acquisition parameter is an X-ray to which the object is exposed (page 12, lines 4-8).

As further featured in claim 33, 36 & 37, the image acquisition parameter is a sensor parameter, and wherein the sensor parameter is one of a resolution of the sensor and a dynamic range of the sensor (page 12, lines 12-15).

#### **GROUND OF REJECTION TO BE REVIEWED ON APPEAL**

The grounds of rejection to be reviewed on Appeal are: (1) the rejections of claims 2, 4-8, 10, 11, 13, 15, 16, 19, 21-24 and 27 under 35 U.S.C. § 102 over Yamada et al. U.S. Patent 6,081,614 (“Yamada”); (2) the rejections of claims 25, 26 and 28-38 under 35 U.S.C. § 103 over Yamada.

## **ARGUMENTS**

### **(1) Claims 2, 4-8, 10, 11, 13, 15, 16, 19, 21-24 and 27 Are Patentable Over Yamada under 35 U.S.C. § 102**

#### **Claim 5**

Among other things, the method of claim 5 includes receiving first image data representing an object.

Applicants respectfully submit that Yamada does not disclose a method which receives first image data **representing an object**.

Yamada discloses a system and method for detecting a wafer surface position for a scanning exposure apparatus for performing a photolithography process on the wafer. Yamada's system and method performs a pre-scan for a plurality of exposure regions of the wafer by providing six light beams onto six measurement points on the wafer's surface at each of the exposure regions, receiving the reflected light at six one-dimensional CCD line sensors, and calculating a measurement error with respect to the position of the surface of the wafer at each of the exposure regions.

The Examiner states that Yamada discloses receiving first image data representing an object as step 103 in the flowchart of FIG. 5.

Applicants respectfully disagree.

Applicants respectfully submit that Yamada discloses that step 103 in the flowchart of FIG. 5 is a pre-scan where surface **positions are measured** at a plurality of locations on the surface of a wafer.

Applicants respectfully submit that Yamada does not disclose that step 103 involves any **image** data **representing the wafer (or any other object)**.

So Applicants respectfully submit that Yamada does not disclose the method of claim 5.

Also among other things, the method of claim 5 includes determining an incorrect classification of at least one feature of the object.

Applicants respectfully submit that Yamada does not **classify** any features of the wafer. Applicants respectfully submit that Yamada does not determine any

**incorrect classification** of any features of the wafer. Instead, Applicants respectfully submit that Yamada just determines an error value in the position of the wafer with respect to the exposure illumination system 6 and lens 1.

So, again, Applicants respectfully submit that Yamada does not disclose the method of claim 5.

Accordingly, for at least these reasons, Applicants respectfully submit that claim 5 is patentable over Yamada, and Applicants respectfully request that the Board reverse the Examiner's rejection of claim 5.

**Claims 2, 4, 6-8 and 10-11**

Claims 2, 4, 6-8 and 10-11 depend from claim 5 and are deemed patentable for at least the reasons set forth above with respect to claim 5, and for the following additional reasons.

**Claim 4**

Among other things, in the method of claim 4, producing the first image data includes capturing a first image of the object, and producing the second image data includes capturing a second image of the object.

Applicants respectfully submit that Yamada does not capture any **image of the wafer**.

Accordingly, for at least these additional reasons, Applicants respectfully submit that claim 4 is patentable over Yamada, and Applicants respectfully request that the Board reverse the Examiner's rejection of claim 4.

**Claim 8**

Among other things, in the method of claim 8 the image parameter is an image processing parameter.

The Examiner states that Yamada discloses this as adjusting a focus.

Applicants respectfully disagree.

Applicants also respectfully submit that even if Yamada actually did disclose adjusting a focus used in acquiring an image of the wafer (which Applicants respectfully submit it does not teach), "focus" is not an image **processing** parameter (it is an image **acquisition** parameter). Indeed, focus is a parameter used to produce image data (in Yamada, the "focus" cited repeatedly by the Examiner produces

pertains to the reticle on the wafer), not to process image data. “Focus” is not a parameter for processing a captured image.

Accordingly, for at least these additional reasons, Applicants respectfully submit that claim 8 is patentable over Yamada, and Applicants respectfully request that the Board reverse the Examiner’s rejection of claim 8.

Claim 10

Among other things, in the method of claim 10, producing second image data includes processing raw image data representing an image of at least one feature of the object using a modified setting of an image processing parameter to produce second image data.

Applicants respectfully submit that Yamada does not process any raw image data that represents an image of any feature of the object itself. Applicants respectfully submit that detecting a position is not processing raw image data representing an image of at least one feature of an object.

Accordingly, for at least these additional reasons, Applicants respectfully submit that claim 10 is patentable over Yamada, and Applicants respectfully request that the Board reverse the Examiner’s rejection of claim 10.

Claim 11

Applicants respectfully submit that “focus” is not a parameter that indicates a processing type.

Accordingly, for at least these additional reasons, Applicants respectfully submit that claim 11 is patentable over Yamada, and Applicants respectfully request that the Board reverse the Examiner’s rejection of claim 11.

Claim 15

Among other things, the method of claim 15 includes setting at least one image acquisition parameter to capture a first image of the object; and determining an incorrect classification of at least one feature of the object based on first image data representing the first image captured using the setting.

As explained above, Applicants respectfully submit that Yamada does not capture any image of its wafer, nor does it classify any feature of the wafer (nor, therefore, does it determine any incorrect classification of a feature).



Accordingly, for at least these reasons, Applicants respectfully submit that claim 15 is patentable over Yamada, and Applicants respectfully request that the Board reverse the Examiner's rejection of claim 15.

Claims 13 and 16

Claims 13 and 16 depend from claim 15 and are deemed patentable for at least the reasons set forth above with respect to claim 15.

Claim 21

Among other things, the inspection system of claim 21 includes a processor connected to receive first image data representing an object, the first image data being produced using an image parameter, wherein the processor includes a classification processor to receive the first image data, to determine an incorrect classification of at least one feature of the object based on the first image data as a result of an original setting of the image parameter, and to calculate image parameter modification information to correct the incorrect classification.

At the outset, Applicants respectfully submit that the Examiner cites absolutely NOTHING in Yamada that supposedly corresponds to the recited processor, and more specifically, the classification processor.

Instead, the Examiner states that "all claimed limitations" in claim 21 "are set forth and rejected as per discussion for claims 2, 4-8, 10 and 11.

Applicants respectfully disagree.

Neither Applicants' claim 5, nor the Examiner's discussion of claim 5, make any mention whatsoever of any classification processor.

Therefore Applicants respectfully submit that the rejection of claim 21 is clear error. M.P.E.P. § 707.07(d).

Furthermore, Applicants respectfully submit that Yamada does not disclose any processor including a classification processor to receive the first image data, to determine an incorrect classification of at least one feature of the object based on the first image data as a result of an original setting of the image parameter, and to calculate image parameter modification information to correct the incorrect classification.

Accordingly, for at least these reasons, Applicants respectfully submit that

claim 21 is patentable over Yamada, and Applicants respectfully request that the Board reverse the Examiner's rejection of claim 21.

Claims 19, 22-24 and 27

Claims 19, 22-24 and 27 depend from claim 21 and are deemed patentable for at least the reasons set forth above with respect to claim 21.

**(2) Claims 25, 26 and 28-38 Are Patentable Over Yamada under 35 U.S.C. § 103**

Claims 25, 26, and 28-38 depend variously from claims 5, 16 and 21 and are deemed patentable for at least the reasons set forth above with respect to claims 5, 16 and 21, and for the following additional reasons.

The Examiner fairly admits that Yamada does not disclose ANY of the features of claims 25, 26, and 28-38.

However, the Examiner states that these features *"in this field of endeavor are notoriously well known and are commonly modified to enhance image output/quality."*

Applicants respectfully disagree.

At the outset, Applicants respectfully submit that Yamada does not even output an image of the wafer, and therefore has absolutely no interest in *"enhance"*-ing any *"output image/quality."*

Furthermore, since the Examiner proposes to modify Yamada to obtain Applicants' claimed invention, the only relevant "field of endeavor" is the field of endeavor of Yamada – which is the field of surface position detectors.

Applicants specifically traverse the statements that the claimed features are *"notoriously well known"* in Yamada's field of endeavor. Applicants respectfully submit that the Examiner provides absolutely zero evidence in support of these contentions. To the extent that the Examiner is taking Official Notice of these allegedly *"notoriously well-known"* features, Applicants have already respectfully requested that the Examiner provide evidence in support of the Office Notice. See M.P.E.P. § 2144.03. If the Examiner was relying on personal knowledge to support the finding of what is known in the art, Applicants also respectfully requested that the Examiner provide an affidavit or declaration setting forth specific factual statements and explanation to support the finding. See 37 CFR 1.104(d)(2).

The Examiner contends that this was all provided in the first Office Action dated 18 April 2008.

Applicants respectfully disagree, and invite the Board to read the aforementioned Office Action and see if they can find where the Examiner cited evidence in support of his contentions of “*notoriously well known*” features in the pertinent art for each and every one of the features of claims 25, 26, and 28-38.

Furthermore, Applicants respectfully submit that the Examiner does not properly conduct the analysis required for a rejection under 35 U.S.C. § 103.

At the outset, Applicants respectfully submit that the Examiner fails to establish the level of ordinary skill in the art of the present invention. This is a fundamental requirement for maintaining a rejection under 35 U.S.C. § 103. See M.P.E.P. § 2141.03. Thus the Examiner fails to perform the analysis required by KSR International Co. v. Teleflex Inc., 550 U.S. 398, 82 USPQ2d 1385 (2007) (“KSR”) for establishing a prima facie case of obviousness.

Furthermore, rejections on obviousness grounds cannot be sustained with mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness. In re Kahn, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006). See also KSR, 550 U.S. at 409 , 82 USPQ2d at 1396 (quoting Federal Circuit statement with approval).

Here, Applicants respectfully submit that the Examiner does not establish any reasons with rational underpinnings why anyone of ordinary skill in the art at the time the invention was made would have modified Yamada to include each of the features recited in claims 25, 26, and 28-38, as proposed by the Examiner.

Accordingly, for at least these additional reasons, Applicants respectfully submit that claims 25, 26, and 28-38 are patentable over Yamada, and Applicants respectfully request that the Board reverse the Examiner’s rejections of claims 25, 26, and 28-38.

In Conclusion . . .

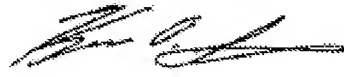
For all of the foregoing reasons, Applicants respectfully request that the

rejections of claims 2, 4-8, 10-11, 13, 15-16, 19 and 21-38 be withdrawn, the claims be allowed, and the application be passed to issue. If necessary, the Commissioner is hereby authorized in this reply to charge payment or credit any overpayment to Deposit Account No. 50-1078 for any additional fees required under 37 C.F.R. § 1.16, 37 C.F.R. § 1.17 or 37 C.F.R. § 41.20, particularly extension of time fees or any additional fee required for filing this Appeal Brief.

Respectfully submitted,

VOLENTINE & WHITT

Date: 10 April 2009

By:   
Kenneth D. Springer  
Registration No. 39,843

VOLENTINE & WHITT  
11951 Freedom Drive, Suite 1260  
Reston, Virginia 20190  
Telephone No.: (571) 283-0724  
Facsimile No.: (571) 283-0740

### **CLAIMS APPENDIX**

2. (Previously Presented) The method of Claim 5, wherein the image parameter is an image acquisition parameter.

4. (Original) The method of Claim 2, wherein said producing the first image data includes capturing a first image of the object, and wherein said producing the second image data includes capturing a second image of the object.

5. (Previously Presented) A method for providing feedback during an inspection of an object, the method comprising:

receiving first image data representing the object, the first image data being produced using an image parameter;

determining an incorrect classification of at least one feature of the object based on the first image data produced as a result of an original setting of the image parameter;

calculating image parameter modification information to correct the incorrect classification and

modifying the original setting of the image parameter to a modified setting based on the image parameter modification information; and

receiving second image data representing the object, the second image data being produced using the modified image parameter.

6. (Previously Presented) The method of Claim 2, wherein said producing the first image data includes producing first raw image data representing the first image using the original setting of the image acquisition parameter, and wherein said producing the second image data includes producing second raw image data representing the second image using the modified setting of the image acquisition parameter.

7. (Original) The method of Claim 2, wherein the image acquisition parameter is at least one of an illumination parameter, resolution parameter, sensor parameter or image view parameter.

8. (Previously Presented) The method of Claim 5, wherein the image parameter is an image processing parameter.

10. (Previously Presented) The method of Claim 8, wherein said producing the first image data includes processing raw image data representing an image of the at least one feature of the object using the original setting of the image processing parameter to produce the first image data, and wherein said producing the second image data includes processing the raw image data using the modified setting of the image processing parameter to produce the second image data.

11. (Original) The method of Claim 8, wherein the image processing parameter is at least one of a processing type parameter or a processing complexity parameter.

13. (Previously Presented) The method of Claim 15, wherein said determining includes processing the image data to measure the image acquisition parameter modification information.

15. (Previously Presented) A method for providing feedback during an inspection of an object, the method comprising:

setting at least one image acquisition parameter to capture a first image of the object;

determining an incorrect classification of at least one feature of the object based on first image data representing the first image captured using said setting;

determining image acquisition parameter modification information to correct the incorrect classification and produce an adequate classification; and

modifying the image acquisition parameter based on the image acquisition parameter modification information to capture a second image of the object.

16. (Previously Presented) The method of Claim 15, wherein the image acquisition parameter is at least one of an illumination parameter, resolution parameter, sensor parameter or image view parameter.

19. (Previously Presented) The inspection system of Claim 21, further comprising a sensor disposed in relation to the object to receive illumination projected from the object, to capture a first image of the object, and to produce first raw image data representing the first image, wherein said processor includes an image analysis processor operable to process the first raw image data to produce first image data.

21. (Previously Presented) An inspection system for providing feedback during an inspection of an object, comprising:

a processor connected to receive first image data representing the object, the first image data being produced using an image parameter, wherein said processor includes a classification processor to receive the first image data, to determine an incorrect classification of at least one feature of the object based on the first image data as a result of an original setting of the image parameter, to calculate image parameter modification information to correct the incorrect classification, and to modify the original setting of the image parameter to a modified setting based on the image parameter modification information for use in producing second image data representing the object.

22. (Previously Presented) The inspection system of Claim 19, wherein said sensor is further configured to capture a second image of the object and produce second raw image data representing the second image using the modified setting of the image parameter.

23. (Previously Presented) The inspection system of Claim 19, wherein said image analysis processor is further operable to process the first raw image data using the modified setting of the image parameter to produce second processed image data.

24. (Original) The inspection system of Claim 23, wherein the image parameter is at least one of a processing type parameter or a processing complexity parameter.

25. (Previously Presented) The inspection system of Claim 21, wherein the image parameter is a sensor parameter associated with said sensor.

26. (Original) The inspection system of Claim 25, wherein the sensor parameter is at least one of an exposure duration of said sensor or a resolution associated with the first raw image.

27. (Previously Presented) The inspection system of Claim 21, wherein the image parameter is a view parameter controlling the positional relationship between said sensor and the object.

28. (Previously Presented) The inspection system of Claim 21, further comprising:

an illumination source disposed in relation to the object to illuminate the object, the image parameter being an illumination parameter controlling said illumination source.

29. (Original) The inspection system of Claim 28, wherein said illumination source illuminates the object with a beam of X-rays.

30. (Original) The inspection system of Claim 28, wherein said illumination source illuminates the object with light.



31. (Previously Presented) The method of claim 7, wherein the image acquisition parameter is an illumination parameter, and wherein the illumination parameter is an intensity of an illumination source employed for illuminating the object.

32. (Previously Presented) The method of claim 7, wherein the image acquisition parameter is an X-ray to which the object is exposed.

33. (Previously Presented) The method of claim 7, wherein the image acquisition parameter is a sensor parameter, and wherein the sensor parameter is one of a resolution of the sensor and a dynamic range of the sensor.

34. (Previously Presented) The method of claim 16, wherein the image acquisition parameter is an illumination parameter, and wherein the illumination parameter is an intensity of an illumination source employed for illuminating the object.

35. (Previously Presented) The method of claim 16, wherein the image acquisition parameter is an X-ray to which the object is exposed.

36. (Previously Presented) The method of claim 16, wherein the image acquisition parameter is a sensor parameter, and wherein the sensor parameter is one of a resolution of the sensor and a dynamic range of the sensor.

37. (Previously Presented) The inspection system of claim 25, wherein the sensor parameter is one of a resolution of the sensor and a dynamic range of the sensor.

38. (Previously Presented) The inspection system of claim 21, wherein the image parameter is an intensity of an illumination source employed for illuminating the object.

**EVIDENCE APPENDIX**

{None}

**RELATED PROCEEDINGS APPENDIX**

{None}